OBLON, SPIVAK, ET AL
DOCKET #: 205086US2S
INV: Koichi OTAKE, et al.
SHEET 1 OF 10

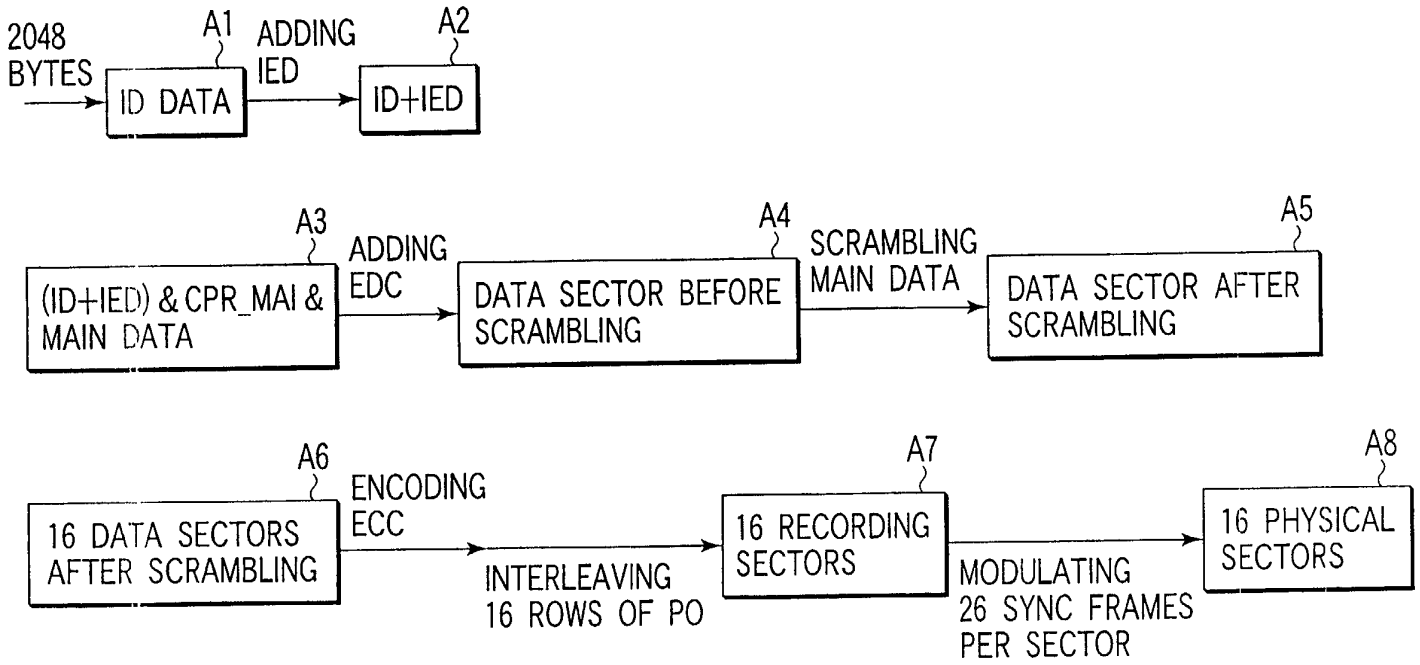

FIG. 1

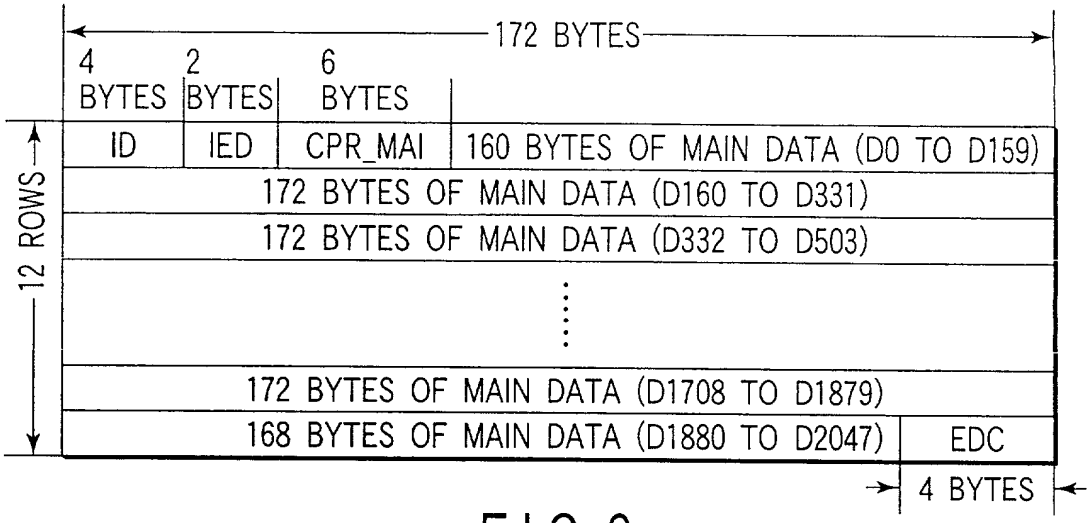

FIG. 2

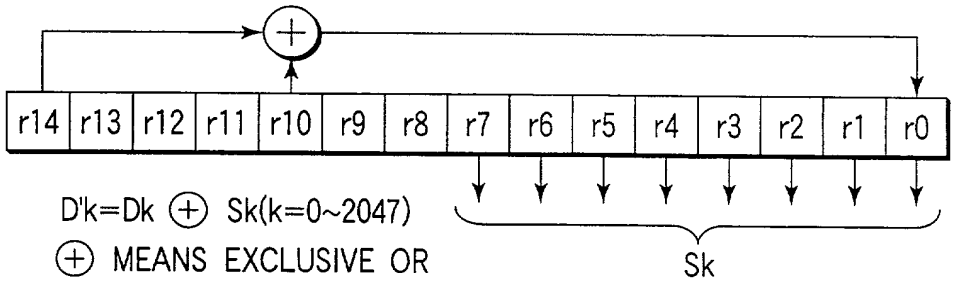

FIG. 3

	172 BYTES					10 BYTES		
192 ROWS	B0,0	B0,1		B0,170	B0,171	B0,172		B0,181
	B1,0	B1,1		B1,170	B1,171	B1,172		B1,181
	B2,0	B2,1		B2,170	B2,171	B2,172		B2,181
	B189,0	B189,1		B189,170	B189,171	B189,172		B189,181
	B190,0	B190,1		B190,170	B190,171	B190,172		B190,181
	B191,0	B191,1		B191,170	B191,171	B191,172		B191,181
16 ROWS	B192,0	B192,1		B192,170	B192,171	B192,172		B192,181
	B207,0	B207,1		B207,170	B207,171	B207,172		B207,181

FIG. 4

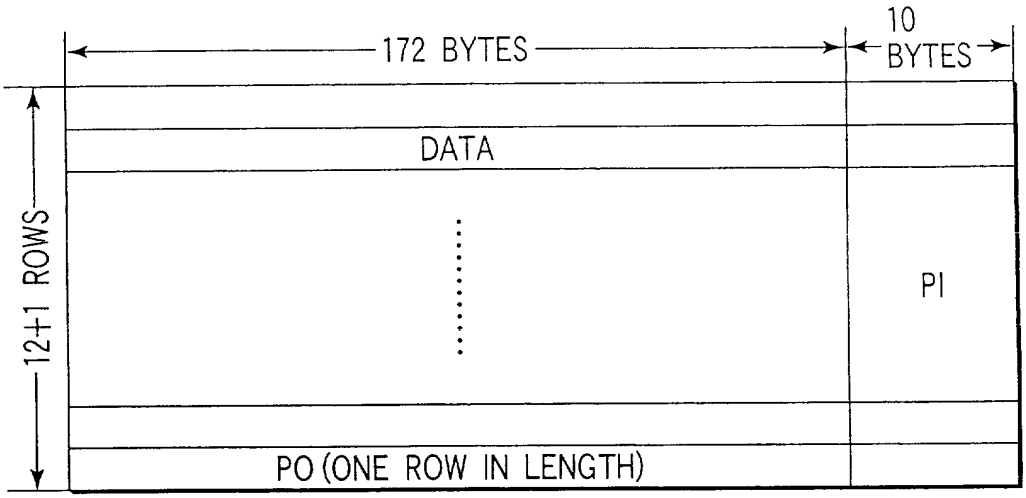
172 BYTES
10 BYTES
DATA
PI
12+1 ROWS
PO (ONE ROW IN LENGTH)

FIG. 5

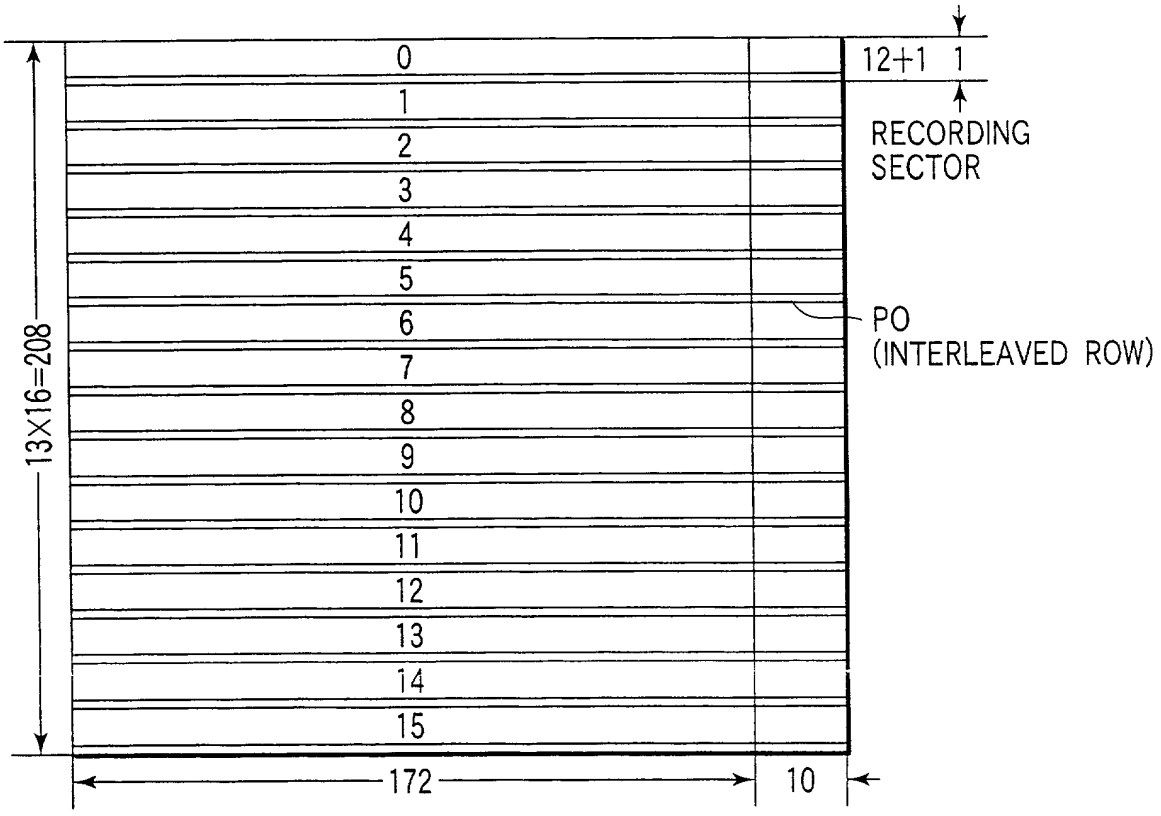
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
13X16=208
12+1
1
RECORDING SECTOR
PO
(INTERLEAVED ROW)
172
10

FIG. 6

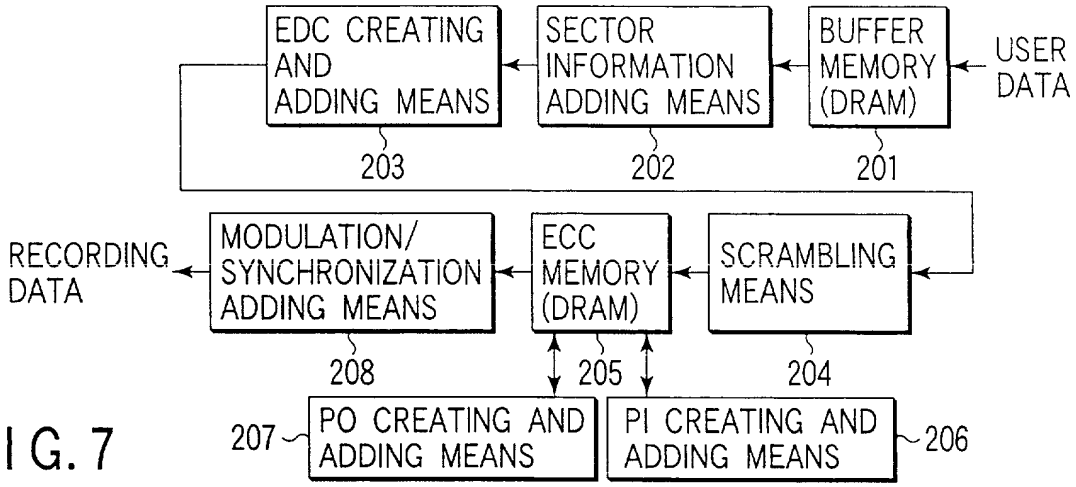

FIG. 7

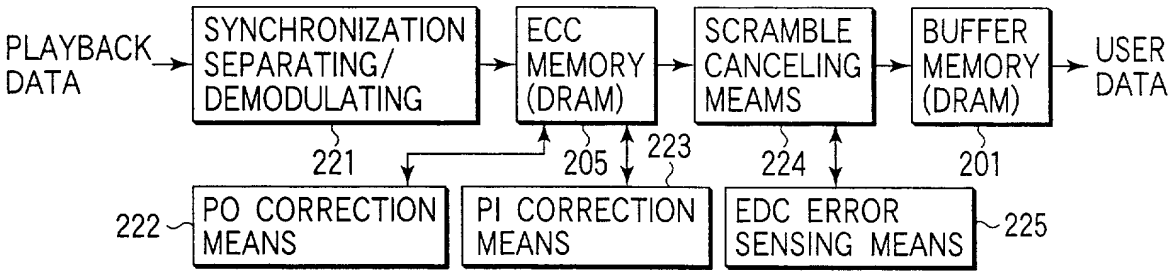

FIG. 8

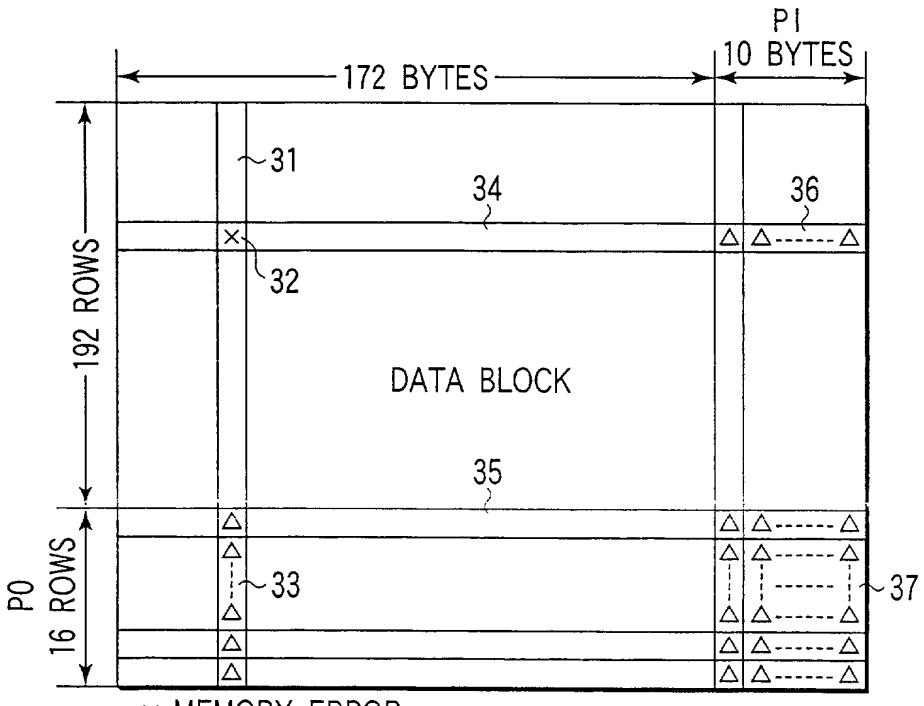

FIG. 9

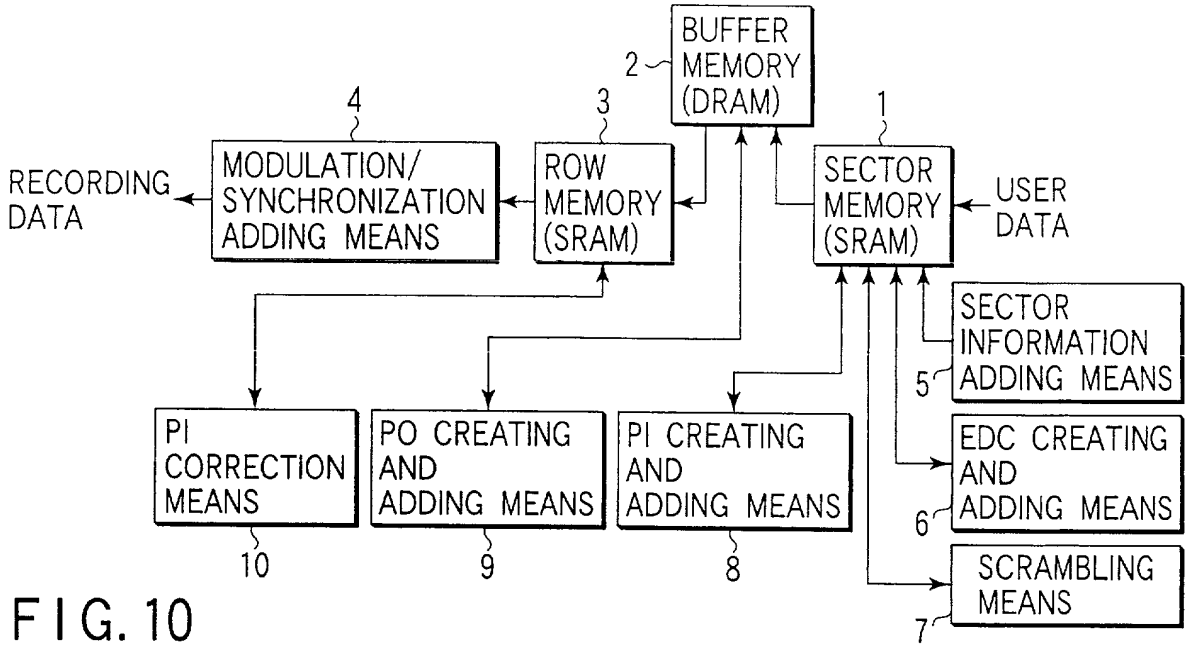

FIG. 10

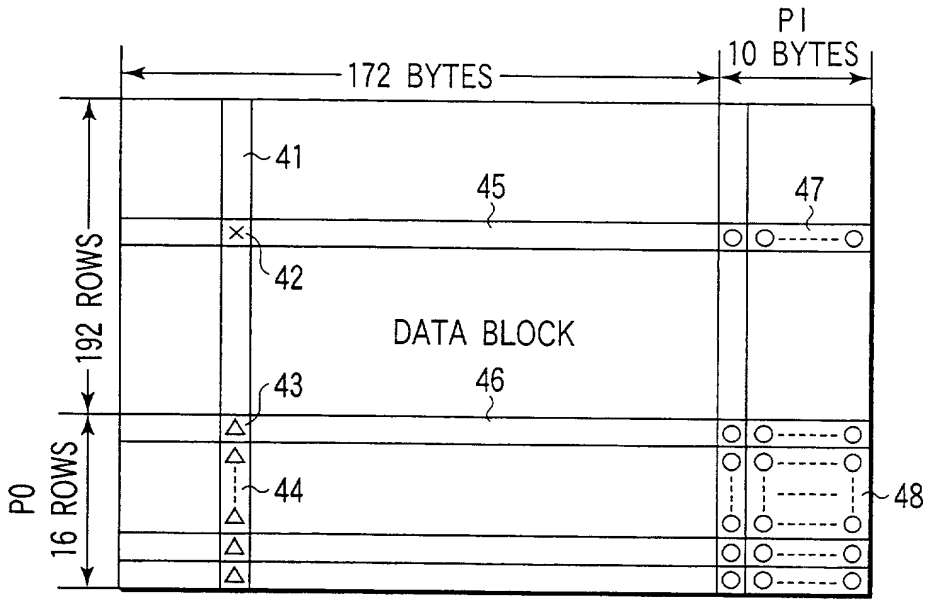

FIG. 11

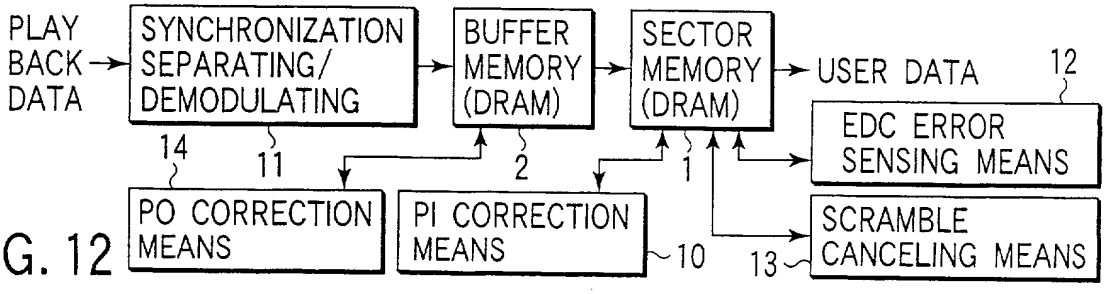

FIG. 12

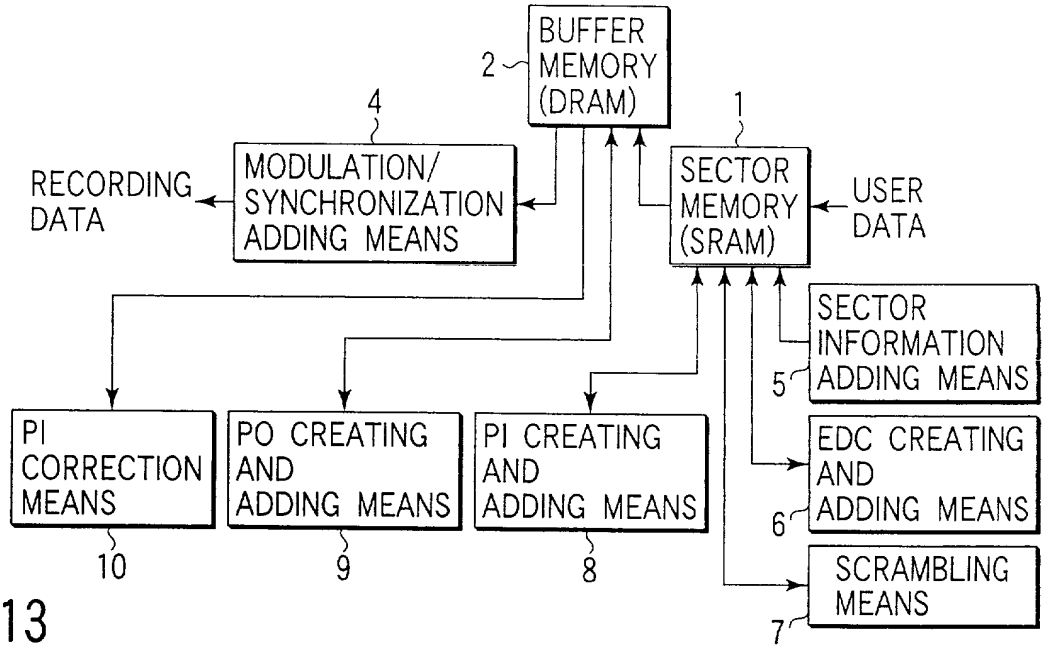

FIG. 13

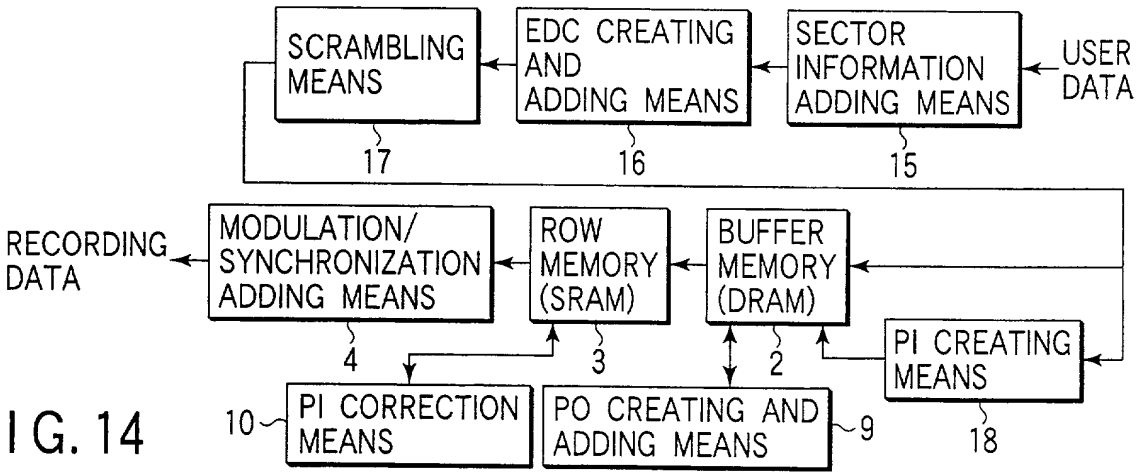

FIG. 14

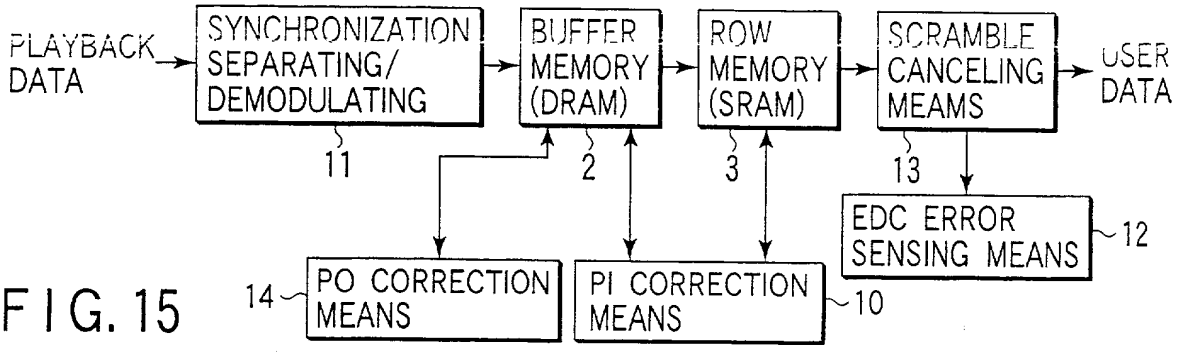

FIG. 15

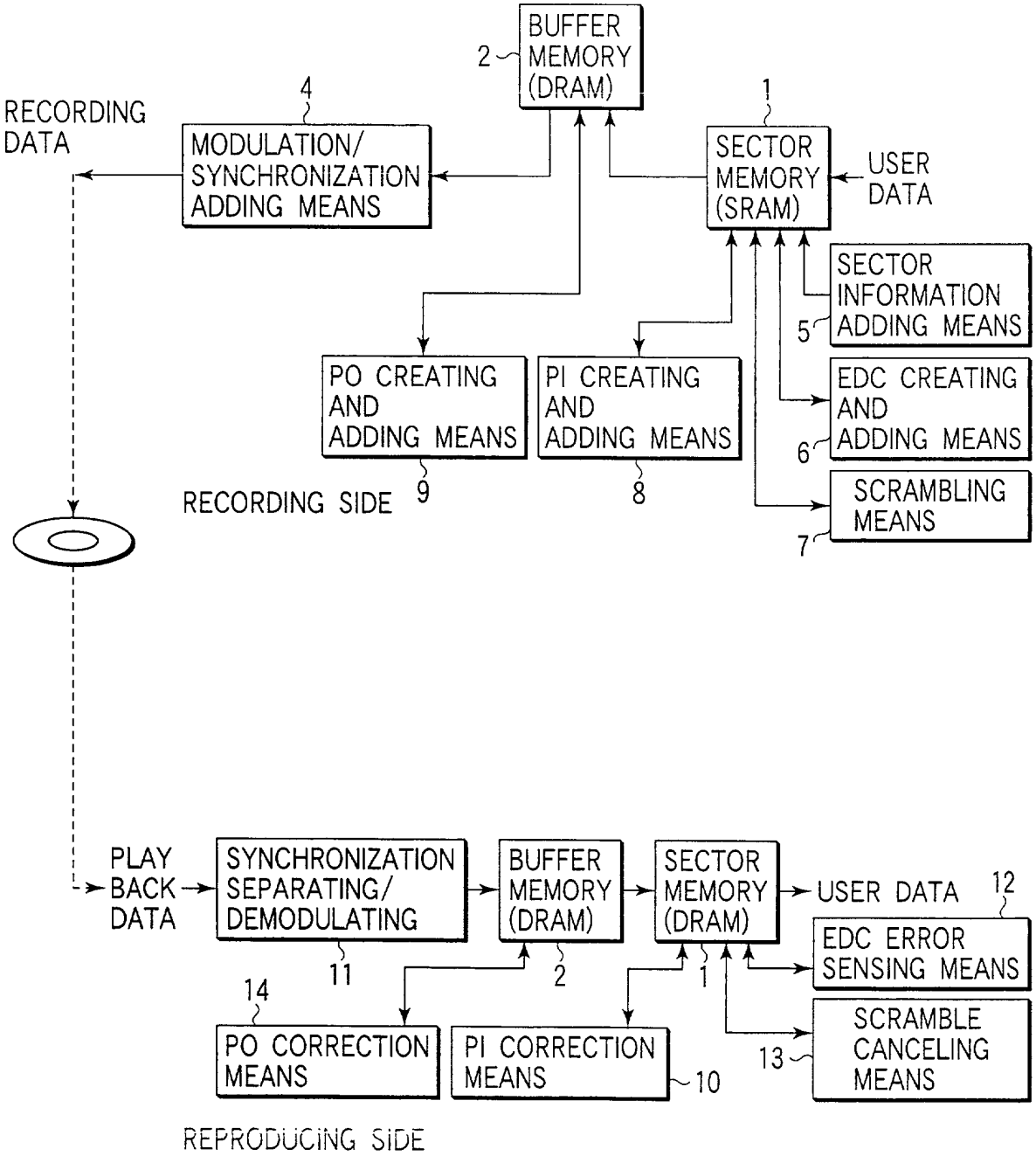
BUFFER MEMORY (DRAM)
2
4
1
RECORDING DATA
MODULATION/ SYNCHRONIZATION ADDING MEANS
SECTOR MEMORY (SRAM)
USER DATA
SECTOR INFORMATION ADDING MEANS
5
PO CREATING AND ADDING MEANS
PI CREATING AND ADDING MEANS
EDC CREATING AND ADDING MEANS
6
RECORDING SIDE
9
8
SCRAMBLING MEANS
7
PLAY BACK DATA
SYNCHRONIZATION SEPARATING/ DEMODULATING
BUFFER MEMORY (DRAM)
SECTOR MEMORY (DRAM)
USER DATA
12
EDC ERROR SENSING MEANS
11
2
1
14
PO CORRECTION MEANS
PI CORRECTION MEANS
10
13
SCRAMBLE CANCELING MEANS
REPRODUCING SIDE

FIG. 16

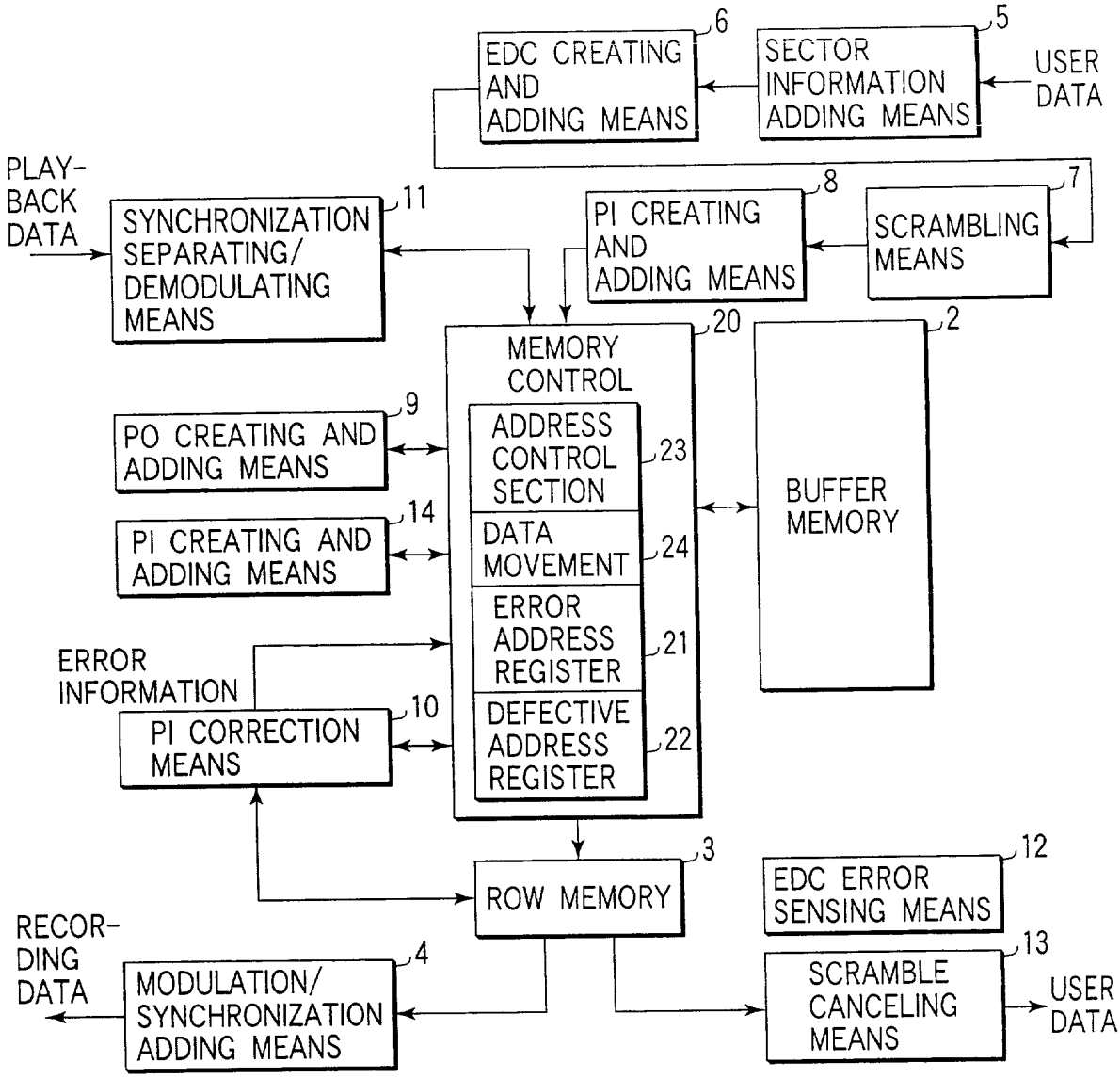
EDC CREATING AND ADDING MEANS
6
SECTOR INFORMATION ADDING MEANS
5
USER DATA
PLAY-BACK DATA
SYNCHRONIZATION SEPARATING/ DEMODULATING MEANS
11
PI CREATING AND ADDING MEANS
8
SCRAMBLING MEANS
7
MEMORY CONTROL
20
2
PO CREATING AND ADDING MEANS
9
ADDRESS CONTROL SECTION
23
BUFFER MEMORY
PI CREATING AND ADDING MEANS
14
DATA MOVEMENT
24
ERROR ADDRESS REGISTER
21
ERROR INFORMATION
PI CORRECTION MEANS
10
DEFECTIVE ADDRESS REGISTER
22
ROW MEMORY
3
EDC ERROR SENSING MEANS
12
RECOR-DING DATA
MODULATION/ SYNCHRONIZATION ADDING MEANS
4
SCRAMBLE CANCELING MEANS
13
USER DATA

FIG. 17

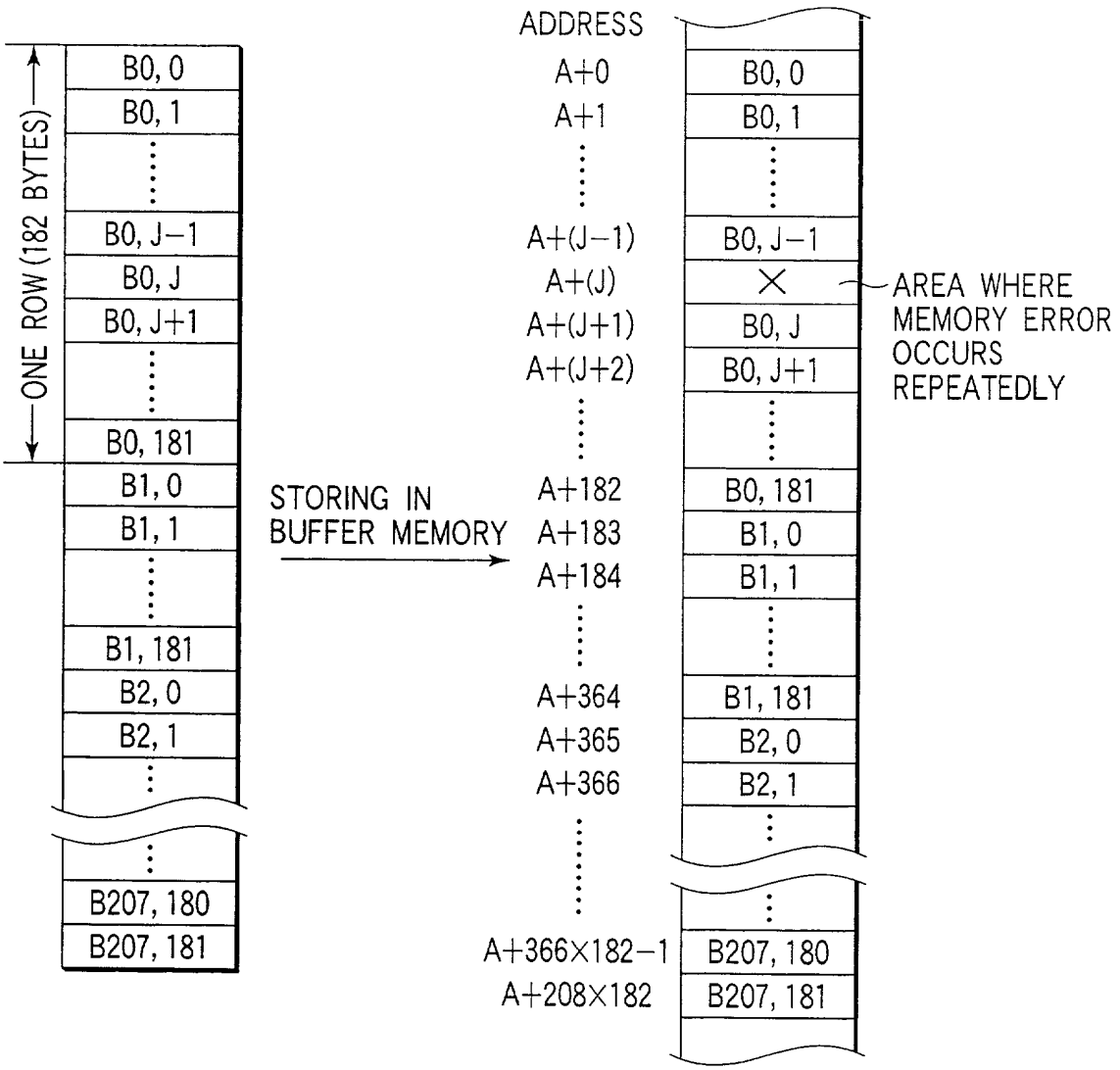

FIG. 18A

FIG. 18B

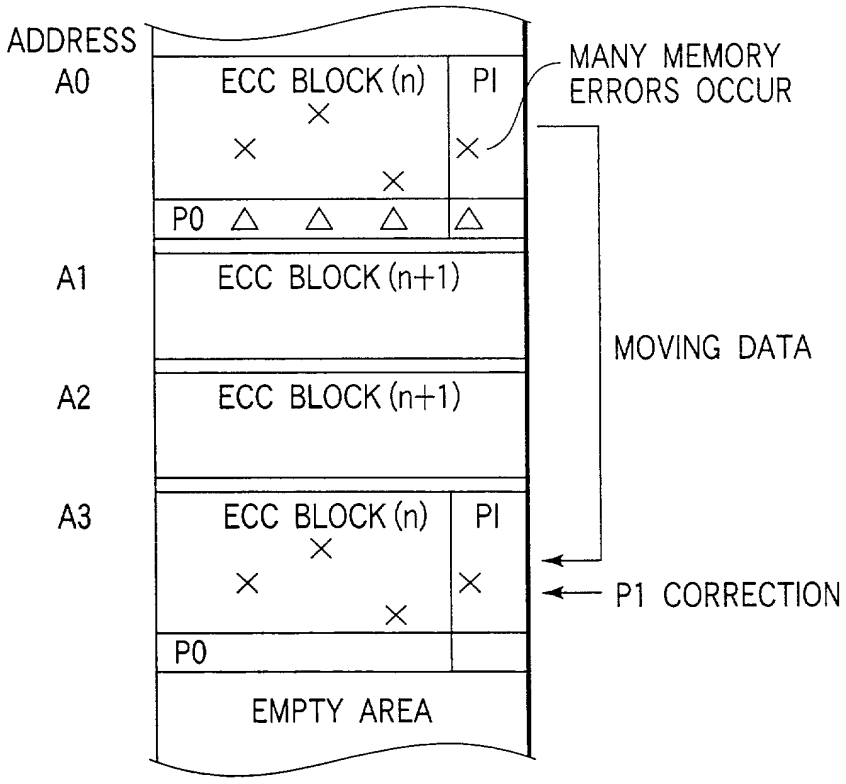
ADDRESS
A0
ECC BLOCK (n)
PI
MANY MEMORY ERRORS OCCUR
P0
A1
ECC BLOCK (n+1)
MOVING DATA
A2
ECC BLOCK (n+1)
A3
ECC BLOCK (n)
PI
P1 CORRECTION
P0
EMPTY AREA

FIG. 19